Algebra 2

Name_____

Adding and Subtracting Polynomials WS

Add or subtract as indicated.

19. $(3a - 2b) + (6b - 2a)$
20. $(4x - 5y) - (4x + 7y)$
21. $(2c^2 + 9) - (3c^2 - 7)$
22. $(-8d - 7) + (-d - 6)$
23. $(3x^2 - 6y - 1) + (5x^2 + 1)$
24. $(-a^2 - 3) - (3a - a^2 - 5)$
25. $(6x^2y - 5xy^2 + 7xy - 7) + (-19x^2y + xy^2 - 11xy + 14)$
26. $(8x^2y + 12xy^2 - 15xy + 21) + (27x^2y + 13xy^2 - 21xy - 17)$
27. $(7x^3 + 9x^2 - 8x + 11) - (5x^3 - 13x - 16)$
28. $(-3x^3 + 7x^2 - 8) - (-5x^3 + 9x^2 - 8x + 19)$
29. $(-12x^3 + 5x - 23) - (4x^4 + 31 - 9x^3)$
30. $(30x^3 - 49x^2 + 7x) + (50x^3 - 75 - 60x^2)$
31. $(0.348x^2 - 3.316) + (-7.829x^2 - 3.957x - 6.387)$
32. $(3.521x^2 - 6.309x) + (-6.217x^2 - 4.208x - 8.492)$
33. $(3a^2 - ab - 7) + (5a^2 + ab + 8) - (-2a^2 + 3ab - 9)$
34. $(a^2 - 2ab + b^2) - (3a^2 - 2ab + b^2) + (4a^2 + 7b^2)$
35. Subtract $5x^3 - 3x^2 + 5x - 1$ from $4x^2 - 7$.
36. From $(3cd - ef)$, subtract $(-4ef + 1)$.
37. By how much does $(3y^2 - 5y - 12)$ exceed $(2y^2 - 3y + 8)$?
38. Subtract $(10x^3 + 5 - 4x^2 - x^4)$ from $(3x - 4x^2 - 5x^3 + 2)$.

Write each sum or difference as a polynomial in standard form

1. $(7x+6)+(9x+5)=$
2. $(11x-9)+(4x+3)=$
3. $(12x+5)-(9x+7)=$
4. $(9x-4)-(2x-7)=$
5. $(7x^2+9x-4)+(2x^2+5x+1)=$
6. $(11x^2-4x+9)+(2x^2+9x-3)=$
7. $(11x^2-4x+3)-(7x^2+2x-8)=$
8. $(7x^2-4x+3)-(14x^2+9x-2)=$
9. $(4x^3-3x^2+5x+11)+(5x^3+9x-7)=$
10. $(13x^3-7x-11)+(4x^3-3x^2+5x+6)=$
11. $(4x^3+11x^2-7x+3)-(9x^3+4x^2+8)=$
12. $(9x^3-4x^2-7x)-(16x^3+7x^2-5x+2)=$
13. $(12x^8-5x^3-9x^2)+(7x^3-2x^2+11)=$
14. $(5x^2+13x-7)-(11x^4+7x^2-2x+9)=$

Write each sum or difference as a polynomial in standard form. Classify the polynomial by degree and number of terms.

1. $(5x^3 + 4x^2 - 5x) + (3x^2 + 2x + 1)$

2. $(8x^3 - 3x - 6) + (3x^2 - 8 + 2x^3)$

3. $(7a^2 + 13a + 20) - (5a^2 - 10a + 6)$

4. $(7y^3 - 2y^2 + 6) - (7y^2 + 2y - 4)$

5. $(-3w^4 + 6w^2 + 2w - 1) + (1 + 2w - 3w^2)$

6. $(9x^5 + x^3 - 2x) - (-2x^5 + 5x^3 + 6)$

7. $(-2x^3 - 4) - (-7x^3 + 2x + 4)$

8. $(5a^3 + 6a^2 - 3a + 1) + (5a^4 - 6a^3 + 2a - 5)$

9. $(3x^2 - 2x + 10) - (2x^2 + 4x - 6)$

10. $(2x^2 + 5x) - (x^2 - 3)$